

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A trailer for towing after a towing vehicle, said trailer comprising:

a) a frame configured for carrying a load and having:

i) a front end with a coupling configured for connecting said trailer to said towing vehicle and allowing that said frame and said towing vehicle are able to assume different angular positions in relation to each other during turning of said towing vehicle and said trailer along a curve track having a turning point; and

ii) a rear end;

b) a separate wheel frame that is connected to said rear end of said frame by at least one connecting link that ~~allow~~ allows a relative turning of said frame in relation to said wheel frame during said turning of said towing vehicle and said trailer along said curve track, said wheel frame comprising oppositely arranged wheels that support said trailer during said towing and that are arranged at a distance from each other close to a respective longitudinally extending side of said frame; and

c) an actuator configured to produce said relative turning of said frame in relation to said wheel frame;

wherein said connecting link also allows a controlled transverse movement of said frame in relation to said wheel frame in a direction towards or away from said turning point, that is in a direction transverse to the direction of driving, simultaneously with said relative turning of said frame in relation to said wheel frame; and

said actuator also produces said transverse movement of said frame.

2. (Canceled)

3. (Previously Presented) A trailer according to claim 1, wherein said wheel frame is arranged behind said rear end of said frame in order to thus constitute said rear end of said trailer.

4. (Currently Amended) A trailer according to claim 1, wherein said wheel frame carries an agricultural implement, ~~in particular a folding boom sprayer.~~

5. (Previously Presented) A trailer according to claim 1, wherein said load is a liquid container.

6. (Currently Amended) A trailer according to claim 5, wherein said container extends until or beyond said rear end of said frame; and that said wheels are arranged at said rear end of said trailer ~~(4)~~ frame opposite said coupling.

7. (Currently Amended) A trailer according to claim 1, wherein said wheels are also arranged for turning about a vertical or essentially vertical axis in relation to said wheel frame; and an actuator ~~are~~ is coupled to said wheel frame to produce said turning.

8. (Previously Presented) A trailer according to claim 1, wherein said connecting link constitutes at least two arms that are pivotally connected to said frame and said wheel frame respectively, and constitute a trapezoidal mechanism for controlling said movement of said frame along a curve track in relation to said wheel frame.

9. (Canceled)

10. (Previously Presented) A trailer according to claim 1, wherein said trailer includes a control unit with a memory that produces, via said actuator, a predetermined fixed setting of said frame in relation to said wheel frame in correspondence with the angle between said towing vehicle and said wheel frame.

11. (Previously Presented) A trailer according to claim 1, said actuator being connected to said frame, to said wheel frame and/or to said connecting link.

12. (Previously Presented) A system comprising a towing vehicle and a trailer according to claim 1, wherein said system includes a control unit with a memory that

produces, via the actuator, a predetermined fixed setting of said frame in relation to said wheel frame in correspondence with the angle between said towing vehicle and said wheel frame.

13. (Previously Presented) A system according to claim 12, wherein the mutual distances transverse to the direction of driving between said wheels of said towing vehicle and between said wheels of said trailer are essentially identical.

14. (Previously Presented) A system according to claim 12, wherein said control unit is configured for ensuring that at least one set of wheels on said towing vehicle and said wheels of said trailer move along the same curved line during turning about said turning point.

15. (Currently Amended) A method of steering a trailer around a turning point, comprising the steps of:

towing a trailer by a towing vehicle, wherein the trailer comprises:

a frame configured for carrying a load, the frame having a front end with a coupling configured for connecting the trailer to the towing vehicle, and a rear end;

a separate wheel frame connected to the rear end of the frame by connecting links, said wheel frame comprising oppositely arranged wheels that support the trailer during the towing and that are arranged at a distance from each other close to a respective longitudinally extending side of the frame;

and

an actuator configured to produce said relative turning of the frame in relation to the wheel frame;

establishing a relative turning of the frame in relation to the wheel frame; and

controlling the connecting links with said actuator, to provide a controlled transversal movement of said frame, in relation to said wheel frame, in a direction towards or away from said turning point simultaneously with said relative turning of said frame in relation to said wheel frame.

16. (Previously Presented) A method of steering a trailer around a turning point according to claim 15, wherein said method further comprises the steps of:

determining the setting of said frame in relation to said wheel frame;
supplying said setting to a control unit; and
controlling said actuator from an output from said controller.

17. (Allowed) A trailer for towing after a towing vehicle, said trailer comprising:

a) a frame configured for carrying a load having:

i) a front end with a coupling configured for connecting said trailer to said towing vehicle and allowing that said frame and said towing vehicle are able to assume different angular positions in relation to each other during turning of said towing vehicle and said trailer along a curve track having a turning point; and

ii) a rear end;

b) a separate wheel frame that is connected to said rear end of said frame with connecting links constituting at least two arms that are pivotally connected to said frame and said wheel frame respectively, and constitute a trapezoidal mechanism for controlling said movement of said frame along a curve track in relation to said wheel frame, said wheel frame comprising oppositely arranged wheels that support said trailer during said towing and that are arranged at a distance from each other close to a respective longitudinally extending side of said frame; and

c) an actuator configured to produce said relative turning of said frame in relation to said wheel frame,

said connecting links also configured to allow a controlled transverse movement of said frame in relation to said wheel frame in a direction towards or away from said turning point, that is in a direction transverse to the direction of driving, simultaneously with said relative turning of said frame in relation to said wheel frame; and

said actuator also configured to produce said transverse movement of said frame.

18. (Canceled)

19. (Allowed) A trailer according to claim 17, wherein said wheel frame is arranged behind said rear end of said frame in order to thus constitute said rear end of said trailer.

20. (Currently Amended) A trailer according to claim 17, wherein said wheel frame carries ~~an agricultural implement, in particular~~ a folding boom sprayer.

21. (Allowed) A trailer according to claim 17, wherein the load is a liquid container.

22. (Allowed) A trailer according to claim 21, wherein said container extends until or beyond said rear end of said frame; and that said wheels are arranged at said rear end of said trailer opposite said coupling.

23. (Currently Amended) A trailer according to claim 17, wherein said wheels are also arranged for turning about a vertical or essentially vertical axis in relation to said wheel frame; and ~~said~~ the trailer further includes a second actuator is coupled to said wheel frame to produce said turning of said wheels in relation to said wheel frame.

24. (Canceled)

25. (Allowed) A trailer according to claim 17, wherein in a control unit with a memory that produces, via said actuator, a predetermined fixed setting of said frame in relation to said wheel frame in correspondence with the angle position between said towing vehicle and said wheel frame.

26. (Allowed) A trailer according to claim 17, wherein said actuator is connected to said frame, to said wheel frame and/or to said connecting link.